

**WHAT IS CLAIMED IS:**

1. A patch panel interface system, comprising:
  - a) a chassis having a plurality of module compartments and a printed circuit board, the printed circuit board including a plurality of back plane connectors and a power input;
  - b) a first module positioned within a first module compartment of the plurality of module compartments, the first module being configured to transmit signals to one of the plurality of back plane connectors of the printed circuit board, the first module having a passive configuration requiring no power from the power input; and
  - c) a second module positioned within a second module compartment of the plurality of module compartments, the second module being configured to transmit signals to another of the plurality of back plane connectors of the printed circuit board, the second module having an active configuration requiring power from the power input.
2. The system of claim 1, wherein the printed circuit board further including a plurality of interface connectors configured to couple each of the modules to the printed circuit board, the interface connectors including a first interface connector piece mounted to the module and a second interface connector piece mounted to the printed circuit board.
3. The system of claim 2, wherein the power input is connected to each of the second interface connector pieces for providing power to modules having active configurations.
4. The system of claim 2, wherein the second interface connector pieces are configured to receive a module having either a passive or an active configuration.

5. A method of configuring a patch panel system, the method comprising the steps of:

- a) providing a chassis having a plurality of module compartments and a printed circuit board, the printed circuit board including a plurality of back plane connectors and a power input;
- b) inserting a first passive module into a first module compartment of the plurality of module compartments, and interconnecting the first passive module with an associated one of the plurality of back plane connectors, the first passive module requiring no power from the power input for operation; and
- c) removing the first passive module from the first module compartment; and
- d) inserting a second active module into the first module compartment of the plurality of module compartments, and interconnecting the second active module with the associated one of the plurality of back plane connectors, the second active module requiring power from the power input for operation.

6. The method of claim 5, wherein the steps of interconnecting the first and second active modules with the associated one of the plurality of back plane connectors including coupling a first interface connector piece of the module to a second interface connector piece mounted to the printed circuit board.

7. A patch panel interface system, comprising:

- a) a chassis having a plurality of module compartments and a back plane, the back plane including at least a plurality of first back plane connectors;
- b) a first module having a first front connector, the first module being configured to interconnect to one of the plurality of first back plane connectors; and
- c) a second module having a second front connector, the second module being configured to interconnect to another of the first back plane connectors, the second front connector of the second module being different than the first front connector of the first module.

8. The patch panel interface system of claim 7, wherein the first front connector of the first module is configured to receive an optical signal and the second front connector of the second module is configured to receive a copper signal.

9. The patch panel interface system of claim 7, wherein the back plane further includes a plurality of second back plane connectors, the second back plane connectors being different than the first back plane connectors.

10. A method of configuring a patch panel system, the method comprising the steps of:

a) providing a chassis having a plurality of module compartments and a back plane, the back plane including a plurality of first back plane connectors;

b) inserting a first module into a one of the plurality of module compartments, and interconnecting the first module with one of the plurality of first back plane connectors, the first module including a first front connector;

c) inserting a second module into another of the plurality of module compartments, and interconnecting the second module with another of the plurality of first back plane connectors, the second module including a second front connector that is different from the first front connector.

11. The method of claim 10, wherein the back plane includes a plurality of second back plane connectors, the second back plane connectors being different than the first back plane connectors.

12. The method of claim 11, further including the step of inserting a third module into another of the plurality of module compartments, and interconnecting the third module with one of the plurality of second back plane connectors.

13. A patch panel interface system, comprising:

- a) a chassis having a plurality of signal transmission module compartments and a printed circuit board, the printed circuit board including a plurality of back plane connectors and a power input;
- b) a first signal transmission module operably positionable within any one of the plurality of signal transmission module compartments, the first module having a passive configuration requiring no power from the power input; and
- c) a second signal transmission module operably positionable within any one of the plurality of signal transmission module compartments, the second module having an active configuration requiring power from the power input.

14. A patch panel interface system, comprising:

- a) a chassis having module compartments, including signal transmission module compartments and at least one control module compartment;
- b) a back plane coupled to the chassis, the back plane including a plurality of back plane connectors and a power input;
- c) a plurality of signal transmission modules, each of the signal transmission modules being positionable within one of the signal transmission module compartments;
- d) a plurality of signal interface connectors configured to couple each of the signal transmission modules to the back plane, each of the signal interface connectors being connected to the power input;
- e) at least one control module positionable within the control module compartment;
- f) a control interface connector configured to couple the control module to the back plane, the control interface connector being connected to the power input;
- g) wherein each of the signal interface connectors is configured to receive signal transmission modules having either a passive configuration requiring no power from the power input, or an active configuration requiring power from the power input.

15. The system of claim 14, wherein all of the signal transmission modules are passive signal transmission modules requiring no power from the power input.

16. The system of claim 14, wherein all the signal transmission modules are active signal transmission modules requiring power from the power input.
17. The system of claim 14, wherein the signal transmission modules include both passive signal transmission modules requiring no power from the power input, and active signal transmission modules requiring power from the power input.